

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

NATIONAL INSTITUTE FOR STRATEGIC
TECHNOLOGY ACQUISITION (NISTAC),

Plaintiff

V.

NISSAN NORTH AMERICA, INC. et al.,

Defendants.

AND RELATED COUNTERCLAIMS

Case No. 11-cv-11039-GCS-LJM

Hon. George C. Steeh
Magistrate Judge Laurie Michelson

JURY DEMANDED

DEFENDANTS' SUPPLEMENTAL RESPONSIVE CLAIM CONSTRUCTION BRIEF

Apparently recognizing that its initial claim construction positions were untenable, NISTAC has now abandoned them and—for the first time in its responsive claim construction brief—taken entirely new positions on multiple claim terms. But NISTAC’s eleventh-hour constructions of the terms of the patents remaining in this case¹ fare no better than its original positions. Not even its reliance on an untimely, previously undisclosed expert declaration can save NISTAC here.² For the reasons set forth below, as well as those set forth in Defendants’ Initial and Responsive Claim Construction Briefs, NISTAC’s approach should be rejected by this Court.

I. Proposed Constructions of “lands,” “relieved”/“unrelieved,” and “reservoirs of oil”

NISTAC has abandoned its previous position regarding the meaning of “lands” and the extrinsic evidence it previously cited in support of its position. NISTAC originally contended “that no construction is needed for the term ‘lands’ as it is used in its ordinary and common manner” and that it would be “readily understood by a person of ordinary skill in the art.” (D.I. 75 at 19.) NISTAC’s previously proposed “alternative” construction relied solely upon an SAE publication that purported to set forth the “ordinary meaning” of the term “lands” which, according to NISTAC, was “the parts of the piston that are above and below the ring groove.” (*Id.* at 19–20.) Yet, by setting forth a completely new position and abandoning its reliance upon the SAE publication, NISTAC has conceded that the term “lands” is not “used in its ordinary and

¹ After Opening Claim Construction briefs were filed by the parties, NISTAC dismissed its claims regarding the ’637 patent with prejudice as to all Defendants. (D.I. 78.) As such, only its claims regarding the ’955 and ’919 patents remain in this case.

² Defendants moved to strike the Declaration of Richard P. Baron (“the Baron Declaration”) filed by NISTAC in connection with its Responsive Claim Construction Brief. (D.I. 81.) As reflected in the Proposed Agreed Order submitted by the parties on December 2, 2011, the Court set forth a procedure addressing the Baron Declaration at the November 29, 2011 hearing.

common manner” and that the patentee adopted a particular meaning set forth in the patents’ specification. (D.I. 79 at 2.) NISTAC’s new proposal, however, ignores the teachings of the patents’ specification that the “lands” must surround the relieved portions of the skirt wall.

NISTAC now also proposes new “alternative” constructions for the terms “relieved”/“unrelieved” and “reservoirs of oil.” Although NISTAC claims its new positions adhere to “basic canon[s] of claim construction,” (D.I. 79 at 8), the intrinsic evidence dictates otherwise. Only Defendants’ proposed constructions reflect the meanings of these terms as used in the patents’ common specification.

<u>Claim Term</u>	<u>Defendants’ Proposed Construction</u>	<u>NISTAC’s Original Construction</u>	<u>NISTAC’s Modified Construction</u>
“lands”	“unrelieved portions of the piston skirt surrounding the relieved portions”	No construction necessary. Alternatively, “the parts of the piston that are above and below the ring groove”	“the unrelieved portions of the piston skirt wall”
“relieved” / “unrelieved”	“cut away” / “not cut away”	No construction necessary.	No construction necessary. Alternatively, “of reduced diameter”
“reservoirs of oil”	“relieved portions on the piston skirt that retain oil and are surrounded by lands”	No construction necessary.	No construction necessary. Alternatively, “oil that has been retained in the relieved portions of the piston”

As Defendants explained in their Initial Brief, the specification unequivocally teaches that the friction-reduction claimed by the patents-in-suit is to be accomplished through two means: (i) oil retention and replenishment and (ii) a transferred coating from the piston skirt to the cylinder bore wall. (D.I. 74, Ex. A, ’955 patent at 7:17–37.) NISTAC’s treatment of the

geometrical relationship between the “lands” and the “reservoirs of oil” (i.e., the “relieved areas”) as “merely” consistent with the specification and optional entirely ignores the disclosure of the patents-in-suit and how the stated objectives are allegedly accomplished by the patented piston. Every disclosure of “lands” in the patents-in-suit shows the lands surrounding the relieved areas (i.e., the “reservoirs of oil”). Indeed, the two stated objectives ((i) and (ii) above) are only achieved by reducing the area of the lands such that they (1) surround the “reservoirs of oil” and (2) increase the size of the “reservoirs of oil.”³ And, the patents-in-suit teach the formation of the relieved areas *only* by cutting material away from the surface of the skirt wall to create reservoirs of oil surrounded by lands.

NISTAC’s newfound construction for “reservoirs of oil” demonstrates Defendants’ point. The parties agree that the reservoirs of oil must retain oil, and oil (or anything else, for that matter) cannot be “retained” without some specific structure for retaining it. If oil can be retained without a specific structure for doing so, then every prior art piston would “retain” oil as claimed and there could be no invention. Rather, a reservoir must be surrounded by structure in order to retain something. Here, the “reservoirs” are surrounded by the “lands” in order to retain oil. The patents’ specification makes this clear, for example, by explaining that oil retention is particularly important during the downstroke of the piston, and that the lands must extend around the top of the reservoir to retain oil during a downstroke. (D.I. 74, Ex. A, ’955 patent at 8:7–10 (“The object of the undercut portion is to retain oil, particularly during the downstroke of the

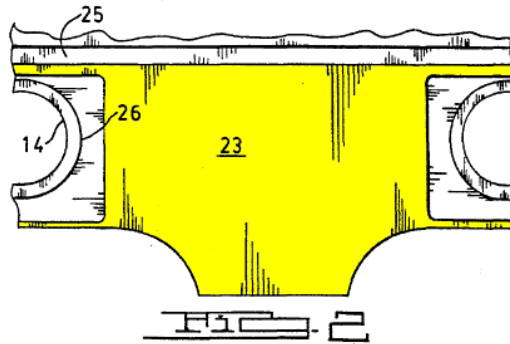
³ The size of the “reservoirs of oil” is inversely proportional to the size of the “lands” because the “relieved” portions form the “reservoirs of oil” while the “unrelieved” portions form the “lands.” And, as the patents’ specification teaches, the area of the “lands” is reduced “to a minimum so that the SFL impregnated surface is subjected to significantly higher thrust loads.” (D.I. 74, Ex. A, ’955 patent at 7:63–65; *id.*, claim 19; *id.* at 7:36–37 (“reducing the intercontact area (lands)”) (parenthetical in original).) Thus, the area of the “relieved” portions forming the “reservoirs of oil” is maximized.

piston . . .”).) Without the surrounding lands, the reservoirs would be incapable of retaining oil and, thus, the claimed piston would fail to meet the objectives of the alleged invention.

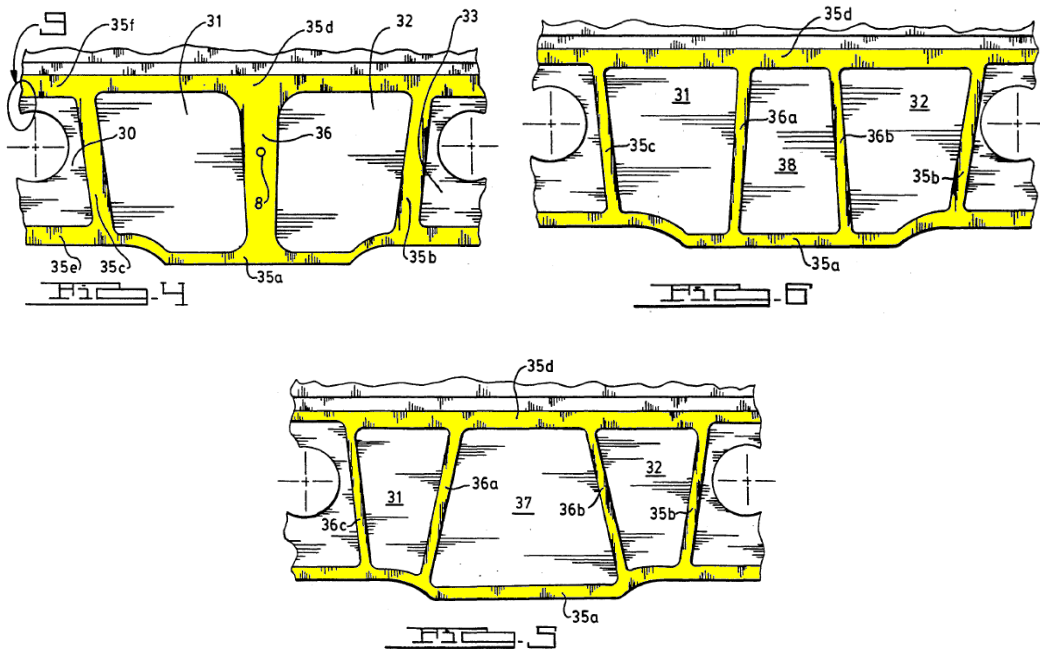
Moreover, only Defendants’ proposed constructions are consistent with the embodiments described or depicted in the patents-in-suit. *Cf. Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (noting that an interpretation which would be inconsistent with the only disclosed embodiment “is rarely, if ever, correct”). The inventors went to great lengths to describe the “lands,” even pointing out how different these were from the prior art pistons that lacked them. The inventors showed prior art pistons lacking “lands” in Figures 1 and 2 of the specification. But without “lands” **surrounding** the “reservoirs of oil” the claimed piston would be no different than the prior art piston ***described in the patents-in-suit and shown in Figures 1 and 2***. NISTAC’s proposed construction, then, cannot be correct, as the terms of a patent cannot be construed such that they encompass the prior art. *See Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 279 F.3d 1357, 1367 (Fed. Cir. 2002) (“[J]ust as the doctrine of equivalents cannot extend so broadly as to ensnare prior art, claim language should generally be construed to preserve validity, *if possible*.” (emphasis in original)).

Here, the patent specification distinguishes the alleged invention from the prior art on the basis of an arrangement of “reservoirs of oil” surrounded by “lands” on the piston skirt. As shown below in a comparison of figures from the patents-in-suit, **every** embodiment of the alleged invention depicts “lands” **surrounding** the “reservoirs of oil.” In fact, the inventors described the “lands” or “unrelieved” areas of the piston as “critical” to their alleged inventions. (D.I. 74, Ex. A, ’955 patent at 5:14–19.) As illustrated by the figures below, only Defendants’ construction is proper because the lands must surround the reservoirs (shading below indicating the “unrelieved” areas of the piston skirt wall):

Prior art as depicted in the patents-in-suit:



Embodiments of the patented piston:



(D.I. 74, Ex. A, '955 patent, Figs. 2, 4–6) (shading added).)

Furthermore, NISTAC's proposed alternative construction of "relieved"/"unrelieved"⁴—"of reduced diameter"—derives no support from the intrinsic evidence and actually creates

⁴ The claims of the patents-in-suit use two terms which the parties have asked the Court to construe: "relieved" and "unrelieved." (E.g., D.I. 74, Ex. A, '955 patent claim 1; *id.*, Ex. B, '919 patent claim 1.) NISTAC, however, has only offered a single proposed construction. NISTAC does not identify the term—"relieved" or "unrelieved"—to which its proposed alternative construction relates.

ambiguity. Notably, NISTAC does not—because it cannot—cite a single passage of the specification in support of its construction, as the patents-in-suit do not discuss areas “of reduced diameter.” (D.I. 79 at 4.) Moreover, NISTAC’s proposed alternative construction not only fails to add clarity, but introduces further confusion. “[O]f reduced diameter” is a relative term without a basis for comparison. Which diameter? “Reduced” as compared to what? Is there some “inner diameter” and “outer diameter?” Which one is which? NISTAC’s proposed alternative construction leaves these questions unanswered—questions the jury will ask. NISTAC’s proposed construction is thus on its face improper.

Finally, NISTAC’s parsing of the words “essential,” “necessary,” and “critical,” (D.I. 79 at 7–8) is nonsensical and misses the point. The “lands,” “relieved”/“unrelieved” areas, and “reservoirs of oil” are required elements of the asserted claims, and these elements are the only means disclosed and described in the patents-in-suit to achieve the stated objectives of the patented piston. That the patents do not specifically use the word “essential” or “necessary” is of no consequence. Moreover, as NISTAC concedes, the specification *does*, in fact, describe the “reservoirs of oil” as “*critical* to the retention of the oil film to promote mixed and hydrodynamic lubrication.” (D.I. 79 at 8 (quoting D.I. 74, Ex. A, ’955 patent at 5:13–19) (emphasis added).)

II. The Claim Terms “low-friction” And “providing a low friction piston” Render The ’955 And ’919 Patent Claims Indefinite.

The arguments set forth by NISTAC reinforce Defendants’ contention that the terms “low-friction” and “providing a low friction piston” are indefinite. As the prior briefing makes clear, NISTAC’s now-abandoned position that the terms need no construction only underscored Defendants’ position that the boundaries of the claims are impossible to determine and the claims, therefore, are indefinite under section 112 of the Patent Act. *Halliburton v. M-I, L.L.C.*,

514 F.3d 1244, 1249-50 (Fed. Cir. 2008). Apparently recognizing this, NISTAC now takes the position that “low-friction” means a “coefficient of friction of less 0.10 [sic].” (D.I. 79 at 23.) For support, NISTAC cites to Figure 15 of the patents-in-suit which, as NISTAC concedes, shows a coefficient of friction in “various possible friction regimes.” (*Id.* at 21–22.) But neither NISTAC nor the patents-in-suit disclose in which “regime” the coefficient of friction is to be measured for purposes of comparison to the claimed “low-friction” piston, nor under what conditions: hot, cold, static, moving (and at what speed, under what load), lubricated, unlubricated, viscosity, etc.

NISTAC’s reliance on extrinsic evidence also fails. **First**, much of the proposed extrinsic evidence NISTAC relies upon consists of information irrelevant to claim construction (regarding Defendants’ accused products) and various publications that disclose various coefficients of frictions in various contexts—to the extent they disclose any coefficient of friction at all. (*Id.*) **Second**, the proposed extrinsic evidence that NISTAC describes as “[t]he most relevant extrinsic evidence” is not even contemporaneous with the patents-in-suit, post-dating the patents-in-suit by as much as **five years**. See *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299 (Fed. Cir. 2003) (declining to consider evidence dated 7 and 10 years after the alleged invention of the patent-in-suit for purposes of claim construction). In short, NISTAC suggests that a person of ordinary skill in the art would (1) read the patents-in-suit, (2) identify the named inventors, (3) locate publications authored by any of the named inventors, including those published **years** after the patents-in-suit issued, (4) determine which of those publications refer to or cite the patents-in-suit, and then (5) use that extrinsic material to determine the meaning of “low-friction” and “providing a low friction piston.” (See *id.* at 22–23.) That NISTAC must fall back on such a contrived and implausible set of events is further evidence that the patents-in-suit

fail to describe the terms “low-friction” and “providing a low friction piston” in sufficient detail to save them from indefiniteness under section 112.

NISTAC’s brief refers to “many details” in the patents-in-suit regarding these two terms, but fails to identify any guidance on the method for testing the coefficient of friction, or the conditions under which such testing should occur. NISTAC concedes that “friction is affected by various factors—absolute viscosity, speed, and unit load.” (D.I. 79 at 22.) NISTAC’s list is by no means comprehensive. Indeed, Defendants’ Initial Brief cited additional factors that were identified in the patents’ specification as influencing the friction on a piston, such as piston structure, piston coating, and engine speed. (D.I. 74 at 25.) The problem is that the patents-in-suit provide ***no details at all*** about the conditions under which the coefficient of friction must be tested to determine if the piston in question is a “low-friction” piston as claimed.

Defendants’ Initial Brief posed several other questions which demonstrated why the terms “low-friction” and “providing a low friction piston” are indefinite. (D.I. 74 at 25.) NISTAC does not answer these questions except to concede that a coefficient of friction is affected by both the type of test employed to measure it and various conditions present at the time of the test. The failure of the patents-in-suit to provide any guidance as to the test that should be employed, or the conditions present at the time of the test, however, are fatal and render the patents’ claims indefinite under section 112 and therefore invalid.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of DEFENDANTS' SUPPLEMENTAL RESPONSIVE CLAIM CONSTRUCTION BRIEF was filed electronically and thus served on all counsel of record on this 2nd day of December, 2011.

/s/ Paul T. O'Neill

Paul T. O'Neill